CLMPTO

08/03/04

K.T.

1. Method for generating pronunciation variants, in particular for a process of recognizing speech, in at least one given target language (TL) and/or dialect,

- wherein speech of at least one and with respect to said given target language (TL) and/or dialect native speaker is analyzed using a recognizing system (SR) to derive pronunciation variants and/or rules for in particular accented speech in said target language (TL) and/or dialect and

- wherein a recognizing system (SR) is used which is designed for and/or trained in at least one given source language (SL).

2. Method according to claim 1, wherein said recognizing system (SR) is - in at least a preprocessing step - trained in at least said given source language (SL) and/or dialect.

3. (Amended) Method according to claim 1, wherein speech in said source language (SL) and/or dialect of at least one and with respect to said source language (SL) and/or dialect native speaker is used for training.

4. (Amended) Method according to claim 1, wherein sets of pronunciation variants and/or rules are derived from said analysis in each case as pronunciation variants and/or rules of speakers of said source language (SL) as a mother tongue or native language trying to speak said target language (TL) as a foreign language.

5. (Amended) Method according to claim 1, wherein new pronunciation variants are generated by applying said derived pronunciation rules to a given starting lexicon for said target language (TL), in particular so as to enrich said starting lexicon to yield a modified lexicon, in particular for a recognition process for said target language (TL).

6. Method according to claim 5, wherein a canonical lexicon is used as said starting lexicon in which pronunciation variants and/or rules only of native speakers of said target language (TL) are initially contained.

7. (Amended) Method according to claim 1, wherein a recognition process or system (SR) which is specific for said source language (SL) is employed for generating pronunciation variants and/or rules.

8. Method according to claim 7, wherein said recognition process or system (RS) for generating pronunciation variants and/or rules contains or is based on at least one language model and a hidden Markov model, which is particularly trained on said source language (SL), in particular by native speech.

9. (Amended) Method according to claim 7, wherein said recognition process or system for generating pronunciation variants contains or is based on at least a phone loop structure for recognizing sequences of phones, phonemes and/or other language subunits or the like.

10. (Amended) Method according to claim 7, wherein said recognition process or system (SR) for generating pronunciation variants and/or rules is restricted by a n-gram structure, in particular by a bi-gram structure, or the like, in particular trained on said source language (SL).

11. (Amended) Method according to claim 1, wherein speech of a variety of speakers of the target language (TL) and/or dialect as a native or mother language is analyzed so as to further increase the set of pronunciation variants and/or rules for said target language (TL).

12. (Amended) Method according to claim 1, which is trained in advance of a process for recognizing speech based on training data, in particular by evaluating a given speech data base of said target language (TL) and or dialect.

13. (Amended) Method according to claim 1, which is trained during the application to a process of recognizing speech of said target language (TL) by a speaker of said target language (TL) as a native or mother language.

14. Method according to claim 13, wherein said language model and/or n-gram structure for restriction are modified by evaluating said recognition process and in particular the recognition results so as to simulate memorizing by a human listener.

15. (Amended) Method for recognizing speech of at least one target language (TL), wherein a method for generating pronunciation variants according to claim 1 is involved.

16. Method according to claim 15, wherein the generation of pronunciation variants is carried out at least in part as a pre-processing step, in particular in advance of recognizing speech in said target language (TL).

17. (Amended) Method according to claim 15, wherein the generation of pronunciation variants is carried out at least in part during the process of recognizing speech of said target language (TL).

18. (Amended) Method according to claim 15, wherein a variety of different source languages (SL) and/or of target languages (TL) is involved.

19. (Amended) System for generating pronunciation variants and/or rules and/or for recognizing speech which is capable of performing the method according to claim 1.

20. (Amended) Computer program product, comprising computer program means adapted to perform and/or realize the method for generating pronunciation variants and/or rules according to claim 1 when executed on a computer.